



PROVINCE OF
NOVA SCOTIA

Report of the **Auditor General**

March 31, 1982





AUDITOR GENERAL
NOVA SCOTIA

The House of Assembly

I have the honour to submit herewith the Annual Report required under Section 8 of the Auditor General Act, for the fiscal year ended March 31, 1982.

Respectfully submitted

A handwritten signature in cursive script, reading "A. W. Sarty".

A. W. SARTY

Auditor General

Halifax, Nova Scotia
January 17, 1983



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GENERAL

Introduction

In the fulfillment of the mandate assigned to me under the Auditor General Act, there are numerous matters to which I must respond. Among these are two subjects which I believe warrant special consideration at this time.

Firstly, there is the necessity for a constant awareness by those who manage public affairs, to ensure that appropriate systems are in place for control over the resources — human, monetary and physical, which are placed under their management. Secondly, there must be a resolve to provide a public accounting of their stewardship, in the most forthright manner possible. I sense that the public's expectation for optimum performance in both of these areas, is greater now than it has been for a long time, undoubtedly due to present economic conditions.

* * * * *

In considering the first of these matters, it should be understood that I am required under the Auditor General Act to report all instances where I have observed that fraudulent activity or a loss has occurred. When instances are found and reported, they often generate considerable interest. However, they are frequently observed in isolation, without due consideration being given to the underlying problems that may exist in the control system, which made it possible for the incident to occur. This is akin to dealing with the results of a problem, rather than with the root causes of it.

This subject of appropriate systems and controls has been dealt with in almost every Annual Report that I have prepared. Furthermore, it is a recurring topic in audit reports to departments and agencies of Government, where system control shortcomings that facilitate the perpetration of a fraudulent act are identified.

Response to the concerns that we raise is mixed. Sometimes prompt action is taken. Frequently, however, there is little or no response until something happens. During the past year, misappropriations occurred in two departments where we had previously identified serious weaknesses in the system controls.

Two articles in this Annual Report are devoted to control over Government assets. In *"Accounting Weaknesses and Fraudulent Activities,"* page 18, situations which facilitate and, in fact, have led to fraudulent activity on the part of Government employees are described.

The principal article in this area is the one entitled, "*Computer Related Audits*," page 46, in which the inadequacies of long range planning and day-to-day control for the development of the computer resource in the Province are dealt with. It also notes specific physical control weaknesses, some of which are being remedied and certain of which are not.

* * * * *

A discussion of the second subject, namely the manner and effectiveness of the annual public accounting by Government, is one that I consider to be of utmost importance. It is an area to which considerable attention has been directed in recent years by accounting and financial people throughout Canada. Although a good deal of progress has been achieved, there remain significant matters to be addressed and resolved, particularly here in Nova Scotia.

While it is required of government to give a public accounting for the resources placed in their trust, it is equally important that this public accounting be conveyed in as clear a manner as possible. I recognize that it is not an easy task to simplify the rather complicated financial position and operating results of the Province.

Nevertheless, it is my contention that the financial statements of Nova Scotia are unduly complex, and are probably the most difficult to understand of all the Provinces in Canada. The reasons for this are primarily related to the accounting and disclosure practices concerning capital expenditures and debt retirement, as well as the use of surplus and reserve accounts.

Accordingly, this report deals at length with the topic of accounting and disclosure policies and practices, in an article entitled "*Accounting for Capital Expenditures and Surplus*", page 74. In addition, there are several other articles which deal with matters relating to accountability, disclosure and understanding of Government financial position and operating results. Among these are *Crown Agency Accountability*, page 61, and *Budgeting Process*, page 31.

I consider it extremely important that the area of accounting and disclosure policy and practice be reviewed carefully, in light of what is done in other Provinces. Although I recognize that worthwhile changes have been implemented in recent years, efforts must be continued to seek ways of making the annual financial statements more easily understood.

Some progress towards setting new accounting policies was made during the year. The Accounting Study Group, formed several years ago, was created to study accounting policy matters. In 1982, it prepared a policy statement regarding the capitalization of assets. The Group recommended which assets should be classified as capital, and which ones should be recognized as current account items. It is now up to the Management Board to consider the recommendations that have been made, and to establish formal policies for future guidance.

Scope of Audit

My examination of the accounts of the Province of Nova Scotia for the fiscal year ended March 31, 1982 included a review of the accounting systems and controls, together with such tests of the accounting records and supporting evidence as I considered necessary in each case, and was carried out in accordance with generally accepted auditing standards.

My last year's Annual Report indicated that because my office was operating at a staffing level below approved complement, it had been necessary to defer certain audit work, and to limit audit activity in the agencies of Government where I am not the appointed auditor. I am pleased to report however, that my office reached its approved staff complement in the closing months of the current audit year.

It must be recognized there has been a significant increase in recent years in the statutory audit requirements my office has to meet. Moreover, accounting systems are becoming more complex owing to the increasing computerization of systems within the agencies and departments of Government. This poses heavier demands, both in the conduct of traditional financial audits, as well as requiring more overall type reviews of computer installations and the environment in which they function.

If staff can be maintained at the approved level, and barring the emergence of any new large mandatory audit assignments, I should be in a position to undertake more discretionary audits under Section 16 of the Auditor General Act during the next audit year.

This section enables me to conduct such audits that I consider necessary, in those crown agencies and corporations where I am not the appointed auditor. Section 16 is reproduced in Appendix I of this report.

During the past year only two major special audit assignments were carried out. These were:

- a review of the new "Management Planning and Budgeting System", that was introduced in 1979; and
- an examination of certain aspects of the management of computer resources in the Province.

These audits are summarized elsewhere in this Annual Report, (pages 31 and 46).

Audit Opinion

In accordance with Section 7 of the Auditor General Act, I have examined in such manner, and to the extent I considered necessary, all accounts of public money received or expended by or on behalf of the Province, and all accounts of money received or expended by the Province in trust for, or on account of any government or person, or for any special purpose.

Except for matters referred to elsewhere in this Report, I am of the opinion that:

- a. accounts have been faithfully and properly kept;
- b. all public money has been fully accounted for, and the rules and procedures applied are sufficient to secure an effective check on the assessment, collection, and proper allocation of the capital and revenue receipts;
- c. money has been expended for the purposes for which it was appropriated by the Legislature, and the expenditures have been made as authorized; and
- d. essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property.

Office of Auditor General

The total cost of operating my office for the 1981-82 fiscal year was \$1,033,036, of which salary costs were \$868,756 or 84%. This compares with total costs of \$876,733, and \$758,181 for salaries in the previous year. Recoveries from crown agencies and corporations, for audit work done on a fee for service basis amounted to \$113,900.

My office maintains an active role in the two organizations with primary responsibilities in the field of government auditing. The tenth annual conference of Legislative Auditors was held in Victoria in July

1982. Attendance at this meeting was from the audit offices of all Provinces and the Federal Government, as well as the chairmen of the Public Accounts Committees of all Provinces.

We have continued our association with the Canadian Comprehensive Auditing Foundation both as a sustaining member, and attendance at its third annual conference in Montreal in September 1982. In addition, staff from my office will be attending audit courses of the Foundation in 1983.

The total approved complement of my office is 34, and staffing to full complement was attained in mid 1982 for the first time. At December 31, 1982 this complement included 17 members holding a professional accounting designation, also a high point for the office. All legislative audit offices in Canada, except one, have a ratio of accredited professionals to total audit staff in the range of 50% to 60%. Therefore, our present position can be viewed as just meeting comparable standards.

I was extremely pleased to have all four of the office's candidates in the Chartered Accountancy Final Examinations of September 1982 attain their C.A. designation. This was a most commendable accomplishment.

During the past year, my audit staff and I have received the utmost in cooperation from Ministers, officials and staff of the departments and agencies of government. We are indeed grateful for this cooperation, and I would like to express my appreciation to all members of the public service of the Province with whom we have been associated during the past year in the conduct of our audits, and also to the Civil Service Commission, Department of Finance and Management Board for their assistance on various administrative matters relating to my office.

To my own staff, I would also like to express my appreciation and gratitude for their continuing support.

**STATUTORY
AUDIT
OBSERVATIONS**

Cash and Other Losses

Under Section 8 (1)(e), of the Auditor General Act, I am required to report to the House of Assembly every case in which:

- *there has been a deficiency or loss through fraud, default or mistake of any person.*

Accordingly, I report the following cases:

Department of Attorney General

Minor unexplained cash losses totalling \$150 occurred in three offices. No recovery has been made.

Department of Education

This Department was subjected to eight break-ins or thefts during the year. In six instances theft occurred and in one instance some damage was done. In all instances no recoveries have been made to date, or charges laid.

Curriculum Development

This office was broken into twice. Equipment valued in excess of \$1,295 was stolen.

Head Office

Two break-ins occurred. In the first, equipment valued at \$1,720 was stolen. No items were stolen in the second break-in.

Dartmouth Adult Vocational Training Centre

Equipment valued at \$360 was stolen.

Adult Vocational Training Modules

Glenco

A break-in occurred during which minor damage was done.

Kentville

Equipment valued at \$517 was stolen, but subsequently recovered.

Nova Scotia Land Survey Institute

A piece of equipment valued at \$650 was stolen.

Department of Health

An employee was misappropriating Departmental material. Charges were laid, resulting in a conviction. Restitution of \$2,215 has been received.

Department of Mines and Energy

A regional office sustained a loss of \$353 as the result of a break-in. No recovery has been made or charges laid.

Nova Scotia Housing Commission

An employee of the Commission obtained a loan under false pretenses. A criminal conviction was obtained and full restitution of \$8,030 was received.

Office of the Speaker

A leased pocket recorder was stolen from the automobile of a Member of the Legislative Assembly. No recovery has been made or charges laid.

Department of Tourism

Keltic Lodge sustained a loss of \$6,700. This matter is still before the courts.

Department of Transportation

This Department was subjected to sixteen break-ins or thefts during the year. Minor damage was caused during one break-in. Fifty-eight pieces of equipment worth \$5,484 were stolen. In addition, seventy-four supply items worth \$1,173 were stolen. To date, no recoveries have been made or charges laid.

Victoria General Hospital

Two unexplained cash losses totalling \$145 occurred. Security officers have conducted an investigation, but no recovery has been made.

Other Department Losses

Three departments reported minor cash losses. They were:

Department of Development — \$10

Department of Consumer Affairs — \$20

Department of Municipal Affairs — \$96

Recoveries amounting to \$53 have been made.

Reporting Procedures

I must again report that my office is not advised of all losses at the time they take place in accordance with Management Manual Bulletin 10-S13. For a more in-depth discussion, refer to the article below.

**Accounting Weaknesses — Fraudulent Activities —
Related Matters*****Introduction***

The Auditor General Act sets forth in Sections 7 and 8, audit and reporting responsibilities for my office which require me to ascertain whether in my opinion:

- all revenues to which the Province is entitled have been received, and that there are adequate systems and procedures to administer the revenue collection function; and
- essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property;

and to report every case in which I have observed that:

- there has been a deficiency or loss through fraud, default or mistake of any person.

A review of previous years' annual reports of my office will show that considerable attention has been devoted to matters relating to the above noted legislative requirement. In last year's report, I described conditions which prevail in many departments of government relating to responsibility for action in situations regarding cases of actual or suspected fraud. No action has been taken on recommendations I made to update Management Manual Bulletin procedures, and to clarify responsibilities.

More specifically my annual reports have contained articles describing:

- weaknesses in the accounting and control systems that make it considerably easier to perpetrate a fraud;
- accounting performance deficiencies, in which I have identified departments and agencies whose accounting staff have demonstrated incompetence and/or poor standards of performance.
- Denials of Opinion relating to specific entities where the systems were such that I could not be assured that all revenues to which the Province is entitled were being received, or expenditures were properly controlled;
- The Manual Bulletin currently in use describing reporting procedures and responsibilities for actual or suspected losses was developed in 1964, and now requires significant revision; and
- cash losses that have occurred through theft, break-in and other fraudulent actions.

Although there has been a strengthening of the accounting and control systems in many of the departments and agencies of Government, there are still some notable weaknesses. Often sufficient attention is not paid to the recommendations contained in the audit reports that are directed to the departments and agencies by my office.

Moreover, there has been a large increase over the last few months in the number of known fraud cases, certain of which may have been prevented had identified accounting weaknesses been corrected. Accordingly, I am repeating instances of control weaknesses, and describing actual cases of fraud that have occurred recently, to illustrate the need for prompt remedial action as weaknesses are identified.

Accounting Control Weaknesses

In my annual reports for the period 1974 through 1977, I tabulated instances in which we had found unsatisfactory accounting systems and inadequate staff performance. One year we stated that in 60 audits there were significant weaknesses. Two other years we reported that 193 and 289 individual cases had been noted.

I discontinued the tabulation in my Annual Report as improvements were implemented, and in more recent years, namely 1980 and 1981, I only identified those situations that were serious enough to warrant a Denial of Opinion.

However, I believe there are several types of control weakness which, if not recognized and addressed, can provide an environment in which fraudulent action is not only easier, but detection becomes extremely difficult. A brief discussion of each is warranted:

1. Inadequate segregation of duties —

Situations in which an individual performs a number of related duties in areas such as cash receipts, cash or cheque disbursements, and the handling of inventory or supplies; which can lead to cases where:

- receipts are taken and never turned in;
- receipts from one source are substituted for those from another;

- bogus payees or recipients are used to receive government cash and cheque payments;
- goods and services are diverted to personal use; and
- stealing of government assets is facilitated.

2. *Lack of independent checks and reviews —*

In many cases, approvals and reviews for authorization of expenditures, or activation of an entitlement to government support are performed on a cursory basis. As a result it is possible for unscrupulous staff to fabricate documentation supporting a payment and convert a supposed bona-fide disbursement to personal use.

There are many situations in which staff are assigned complete responsibilities for control over assets and disbursement of funds, with a minimum of day-to-day check and supervision. In these cases in particular it is essential that supervisory management exercise a degree of review, test check, and reasonableness assessment that will reduce the risk involved. Associated with this area is the recommended practice of regular rotation of duties and functions, so that a given employee is not left entrenched in one position of fairly wide latitude for an extended period of time.

3. *Delays in and lack of required reconciliations —*

There have been numerous cases noted in our audits where key control procedures have either not been performed, or done so late after the fact to be of any benefit. Bank reconciliations and checks of the continuity of receipt numbers are examples of checks that must be performed promptly and thoroughly by someone independent of the reconciliation process.

In certain of my annual reports, I have detailed situations in which a department or agency was seriously deficient in the performance of its accounting responsibilities. These situations involved cases where:

- the staff was incompetent or too inexperienced to fulfill the requisite job;
- systems and procedures were inadequate; or
- there was negligence in the performance of a job.

I acknowledge that improvements are being made. There are few cases at present where the accounting staff is not properly trained, nor where the accounting systems are not adequate — except in those cases where problems are being experienced in conversion to a computerized system. However, there still exist situations of negligence, and inattention to matters of priority. (Refer to article page 25).

I again call attention to these performance deficiencies because an up-to-date and complete set of accounting records and reports is an essential prerequisite to sound control over assets, revenues and disbursements.

Accordingly, I will continue to review carefully and report upon all cases where I consider the accounting function is not being properly performed on a timely basis.

Reporting of Actual or Suspected Losses

In 1981, I commented at length on the need for revised policies and procedures in the handling of irregularities. Although most of the situations coming to the attention of my office are being directed to the Department of the Attorney General, and the police when necessary, I do perceive on the part of certain departments, some uncertainties regarding just how to proceed when confronted with a loss of funds situation. Therefore, certain of what was reported last year bears repeating.

Currently the Government is operating under an "18 year old" directive for the reporting of irregularities — Management Manual Bulletin 10-S13, dated June 1964. This bulletin notes the Auditor General's responsibility to report these losses, and places the primary responsibility for administration of the follow-up process with the Minister of Finance, although the Attorney General is to be consulted and utilized extensively.

The following tabulation of conditions is presented to point out a situation which I believe requires immediate updating, and to solicit both the cooperation and understanding of all departments of Government concerned.

- We are not certain that police and/or Government legal, security and departmental audit staff are always being notified on a

timely basis when fraudulent activity is suspected, resulting in a possible loss of valuable investigation time.

- In cases where public funds or assets are lost, jeopardized, or subject to suspected fraudulent activity, there is confusion and inconsistency at the department level with respect to their right to decide whether to proceed with further investigative and/or disciplinary or legal action.
- My office is not being advised of all losses at the time they take place.
- The Department of Finance does not assume primary responsibility for administration of the follow-up process for irregularities.

Specific Cases of Fraudulent Activity

To illustrate the need for greater attention to good internal controls and to support my suggestion for a review and updating of reporting and subsequent procedures, I would like to refer to several actual cases of fraud that my office has become aware of.

It is not the purpose of these illustrations to provide the details of any misappropriations, these are covered in the "*Cash and Other Losses*" article of my reports in the year in which the situation occurs. Rather it is to demonstrate what has occurred where appropriate controls were not in place.

- Because of an inadequate segregation of duties, which could have been easily remedied and which had been brought to the department's attention by my office — an accounting staff member stole assets of the government.
- In a situation of concentration of duties with one person, an excessive amount of forged and altered documentation was prepared, that should have been detected had supervisory management been more attentive. In this case, receipts of Government monies have been allegedly diverted to personal use.
- An instance in which there was inadequate supervisory management review, due to time pressures, permitted the fraudulent documentation of Government loans to go undetected. An

audit by the department's internal audit staff revealed an employee was able to obtain the funds for personal use.

- Two further cases of inadequate segregation of duties, in which employees had ongoing direct contact with recipients of Government funds, facilitated the diversion of Government payments and Government receipts to the employees. A rotation of duties and periodic independent checks might have revealed this activity earlier.
- One of the largest misappropriations in recent years was described at length in my 1980 Annual Report, involving \$96,000 and the dismissal and conviction of a Government employee.

This was a situation in which the employee had sole control over receipt of revenues and disbursements from bank accounts.

Conclusion

The foregoing presentation of material from previous Annual Reports, relating to control weaknesses and related matters, as well as reference to selected cases of fraudulent activity have been furnished with a view to enhancing an awareness of the situation. It explains my concern regarding the lack of attention to the area by many who should be deeply concerned about it.

Accordingly, I must conclude with the admonition that pressures on the assets and systems of Government by those bent on fraudulent action is likely to become greater. Therefore, those in both management and accounting positions must direct far more attention and care to this area.

My office will become increasingly concerned with these matters, and devote more attention to ensuring adequate systems are in place, and that those responsible for their operation are performing their duties to acceptable standards.

Performance of the Accounting Function

For many years, I have had concern about the long delays that are frequently experienced in finalizing the accounting records and preparing financial statements for agencies of Government, following their fiscal year end.

Situations are encountered where accounting records are not ready for our examination within a reasonable time, and there are extensive delays in providing us with essential information. These delays create additional audit time for my office, because the work must then be done on an intermittent basis. Furthermore, with all agencies having a March 31 year end, the scheduling of audits becomes much more difficult when interruptions occur.

Frequently, in order to expedite matters, my staff have undertaken certain reconciliations and analyses that ought to have been performed by the entity's own accounting staff. Admittedly, there are from time to time extenuating circumstances, but where delays are caused by a combination of inattention, lack of priority, or unsuitably trained staff, the situation cannot be overlooked.

As part of my mandate under the Auditor General Act, I am required to report whether records have been faithfully kept. Accordingly, to fulfill my responsibility to the Legislature, I consider it necessary to report upon cases where excessive time delays in completion of an audit have been experienced, or where my staff has been required to perform accounting work which should have been done by the entity's own staff.

During the past year, the delays and related poor performance exceeded anything experienced in recent years. Moreover, these situations took place in audits where, in my opinion, the accounting staff possess sufficient professional accreditation and experience, as well as an ample level of remuneration. In my judgement, there were no special conditions or extenuating circumstances contributing to these delays.

As a result, my staff was required to spend an additional 600 hours on four audits with a direct cost of over \$20,000. Furthermore, I was forced to cancel or defer audit work which had been planned in other areas of Government.

The audits on which excessive delays were experienced and additional audit time required were:

- Department of Mines and Energy — Novaco Limited
- Nova Scotia Housing Commission
- Technical University of Nova Scotia
- Victoria General Hospital

In the conduct of these audits, we commenced our initial work at a time when the accounting records were supposedly complete and ready. However, it was necessary to withdraw for extended periods until required data and information was made available. In one case, there was a postponement of 22 weeks in the audit, awaiting information from the agency. The consequences of these delays, in addition to requiring 600 more hours of our time, was that the financial statements were not finalized until a period ranging from November 1982 to January 1983. The following are illustrative of the conditions that contributed to these delays:

- bank accounts not kept up-to-date nor reconciled, (one bank account had a difference of over \$700,000 until October 1982);
- subsidiary ledgers for accounts payable and accounts receivable not reconciled to control accounts;
- the entity's accounts not reconciled to the records at the Department of Finance;
- account and transaction analyses not prepared for audit review; and
- key staff unavailable for extended periods to provide required information and explanation to audit staff.

In the fulfillment of accounting stewardship responsibilities, it is essential that management have a greater sense of priority in matters relating to fiscal accountability. I am endeavouring to meet an audit mandate legislated under the Auditor General Act that in recent years has grown substantially in both size and complexity. This is being done with an audit staff that has been held to very modest growth over the

years. Accordingly, it becomes increasingly difficult to absorb both the additional time requirements and the unreasonable delays in completion of requisite audit assignments, without seriously impairing the effectiveness of my office.

Therefore, in future, my policy shall be to commence all such audits at a mutually agreed upon time when all accounting data will be ready and available for audit. In addition, it shall be my policy to have the crown entity, in many cases, assume the responsibility for the actual preparation of their own financial statements — a task previously performed in most cases by my office. This is a responsibility that is usually assumed by management. The transfer of this task will be only to those entities which we believe have the resources, and not only can, but should be preparing their own financial statements.

In cases where the above conditions are not met within reasonable tolerances, it may not be possible for my office to commit itself to the completion of the audit. I cannot continue a practice of cancelling and deferring certain other operational and discretionary audit work in order to accommodate those who are failing to give priority to this aspect of financial accountability.

A suggestion that would serve to enforce an earlier completion of the necessary year end financial work would be to legislate a required completion date. A September 30 date for March 31 fiscal year end would not be unreasonable.

**AGENCY
AND
DEPARTMENTAL
AUDITS**

Departments of Attorney General and Finance

Collection of Accounts Receivable

I have commented in recent annual reports on two situations where the collection of revenues due to the Province has not, in my opinion, been adequately administered.

One of these situations related to fines receivable in the Department of the Attorney General. In both my 1980 and 1981 reports, I cited the increasing level of outstanding fines and the inadequacy of the existing collection systems.

The other related to Health Services taxes, for which the Provincial Tax Commission of the Department of Finance has collection responsibilities. In 1979 and 1980, I reported the results of an in-depth study conducted by my office in 1979 which dealt with organizational, control and information matters in the Commission.

* * *

This year I would like to provide an update and further commentary regarding the collection of receivables in these two departments.

In the case of fines receivable, a large portion of which relate to traffic and vehicular offenses, a new collection system was introduced by the Department of Attorney General, effective December 1, 1982. This will provide for the revocation of drivers' licenses and vehicle permits in cases where there are outstanding unpaid fines. I commend the Department for having introduced this system, which should provide a far more effective means of ensuring the prompt payment of fines.

* * *

The Provincial Tax Commission's responsibilities relate to the collection of the Health Services Tax which in 1981-82 amounted to \$235 million. Two matters which warrant comment are interest rates charged on unpaid taxes, and collection routines.

Section 30 of the Health Services Tax Act permits the Commission to charge interest on unpaid accounts. The rate is currently set at 10%

per annum, which is substantially below the Province's composite interest rate for the year of 15.8%. Commercial borrowing rates are even higher.

These taxes are largely trust monies collected on behalf of the Province and should be remitted promptly. There should be no incentive, because of low interest charges, to substitute tax receipts for regular commercial financing. A realistic interest rate, comparable to commercial borrowing rates, should be charged on a compounding basis, to discourage use of the funds by those who collect taxes on behalf of the Province.

Standard procedures in any collection activity include a regular analysis of the accounts receivable grouped by the length of time they have been outstanding. Currently, the Provincial Tax Commission does not prepare such an aging of accounts receivable. This analysis would highlight those accounts which have been outstanding for a number of months, and allow collection activities to be concentrated on accounts in danger of becoming uncollectable.

In view of the rising level of outstanding receivables for Health Services Tax which at March 31, 1982 had increased to \$24.3 million from \$22.9 million the previous year, it is clear that increased effort must be undertaken to strengthen the collection routines of the Provincial Tax Commission.

Budgeting Process

Introduction

This introduction provides a digest of the following article, which deals with the budgeting system of the Province, and the preparation of the Estimates.

In 1979, there was introduced a revised system, now known as "*The Management Planning and Budgeting System*", for preparation of the Estimates of the Government of Nova Scotia. My office undertook an audit to assess how well this system is working, and to form an opinion on the reasonableness of the 1981-82 Estimates presented to the House of Assembly for its approval.

Our audit encompassed a review of three major departments. We conducted numerous interviews with budget managers in the departments, and also performed various analyses of budgeted and actual expenditures.

There were three principal conclusions that were derived from our examination, which may be summarized as follows:

- The present budget system is a commendable improvement over the previous one. It provides significantly more useful data and information, and presents it in a format that is far more informative.
- There has been a substantial investment of time and effort made in the introduction and refinement of the system — an investment I consider to have been worthwhile.
- I would conclude that generally there is support for the new system among the departments and the budget managers who have responsibility for day-to-day administration of it.

However, in spite of the favorable overall conclusions I have formed with respect to the system itself, there were three significant findings regarding its application in the 1981-82 year that I am reporting upon. These are:

- Additional appropriations totalling \$105 million were required by the Departments of Education and Health. Our review suggests that the Estimates as submitted to the Legislature for approval should have included allowance for some of these additional expenditures.
- An analysis of the relationship between final actual expenditures and the original approved estimate for 110 votes, showed that 26% of these votes were over-expended by an average of 23%.
- There have been deficiencies in providing feedback to budget subject managers concerning both the amounts approved in the Estimates, and information concerning expenditures throughout the year.

In addition, I have offered a word of caution regarding the tendency on occasion, when faced with the pressures to minimize current account deficits, to make budget cuts of a fixed percentage — across the board type. Although this may be the easiest way to reduce planned expenditures, the consequences should be recognized. The very real possibility exists that the excellent progress made to date in the development and implementation of the sounder and more appropriate Management Planning and Budgeting System could be negated, if expenditure reductions are not undertaken in a systematic manner.

The following paragraphs present in more detail the results of the assignment under these captions:

- Background — to the new system
- Nature and Purpose of Our Assignment
- Findings and Conclusions
- A Word of Caution

Background

Importance of the Estimates

The Estimates of the Government of Nova Scotia play a major role in establishing initial financial accountability. They communicate the spending plan for the upcoming fiscal year. It is the primary mechanism which informs users and the general public about those activities which the Government intends to carry out. In addition, the degree or depth of activities is reflected in the amount of dollars voted in each area. The final dollar amounts approved for spending over the ensuing period impact on the monetary needs of the Government.

Consequently, revenue requirements must be developed to provide for the planned spending. This may require changes in legislation to provide additional revenues, or it may prove necessary to resort to borrowings to meet any shortfall.

Each year the spending requirements as detailed in the Estimates are formally recognized by legislation in the form of a statute entitled

"An Act to Provide for Defraying Certain Charges and Expenses of the Public Service of the Province." The Act is also referred to as "The Appropriations Act."

Previous Budgeting System Criticized for Deficiencies

The budgeting system in place throughout the Government until recent years had been subjected to various criticisms. The system basically operated by taking the previous year's costs for programs and activities, and increasing them to allow for inflationary factors and adding the costs of new programs. One criticism was that continuing programs were not being scrutinized and re-evaluated to the extent that they should have been. This was partly because the system did not provide the information and detail necessary to make decisions on the various components of the Government's overall budget.

Another criticism was that the system did not necessarily encourage or demand budgetary input from all those managers responsible for administering programs and disbursing funds. This participation void had a number of people questioning the validity of source data used in preparing the Estimates. It was felt that more reliable information could be obtained from those involved with the programs on a day to day basis. The deficiencies and criticisms ultimately led to a recognized need for improvement.

The New System of Preparing the Estimates

The method now used in preparing the Estimates for the Government of Nova Scotia is the "Management Planning and Budgeting System (MPBS)". This system is based on "Zero-Base Budgeting (ZBB)" a method of budgeting which gained much prominence in the mid 1970's.

The focus of the zero-base budgeting process is twofold:

- Are the current activities efficient and effective?
- Should current activities be eliminated or reduced to fund higher priority programs or to reduce the current budget?

The originator of Zero-Base Budgeting felt that in a political environment the major reallocations of resources would normally occur

within major agencies, such as shifting administrative and maintenance cost savings into direct program delivery. It was believed that the political realities would not allow major shifts to occur between departments or agencies. To expect an automatic tax reduction due to this approach to budgeting would be unrealistic. There were four over-riding reasons that made the zero-base approach worthwhile to government:

- low priority programs could be eliminated or reduced;
- program effectiveness could be dramatically improved;
- high impact programs could obtain increased funding by shifting resources within an agency; and
- tax increases could be restrained.

This system, as modified for use within the Government of Nova Scotia had two main objectives for its implementation. The first was to facilitate the decision process for allocating resources. The second was to improve the ability to monitor and control revenues and expenditures on a timely and regular basis. These objectives, in addition to providing a budget, were further detailed and communicated as:

- to improve operational planning;
- to increase participative management;
- to enhance management communication within a department and between departments;
- to more effectively allocate resources; and
- to demonstrate the cost effectiveness of programs/activities/projects.

The revised system of budgeting was implemented with the assistance of a firm of management consultants familiar with the approach. The process from the outset was not expected to be put in place within a short period of time. The change began in mid 1979. Six departments and four Public Service votes had their budgets prepared under the revised budgeting system and presented as Volume 2 of the 1980-81 Estimates. For the 1981-82 fiscal year, all departments and agencies utilized the new budgeting system for determining budgeted current

revenue and expenditures. Beginning with the 1982-83 fiscal year, capital elements of the budget were also included in accordance with the new budgeting methods. Refinements and improvements to the system were made as its implementation progressed.

Nature and Purpose of Our Assignment

Objectives

We had two basic objectives in mind during the course of our audit. These were as follows:

- to determine whether the system was functioning as described, and whether the stated objectives of the system were actually being accomplished; and
- to form an opinion as to whether or not the Estimates presented to the House of Assembly were reasonable and realistic statements of the intended spending program for the ensuing year.

Methodology

We commenced our audit with emphasis on the 1981-82 fiscal year but subsequently included a review of the 1982-83 budgetary process as well. In addition, during the course of the audit, we obtained some feedback on the 1983-84 budget preparation process.

Our audit encompassed three Government departments — Education, Health, and Social Services. The votes examined totalled \$1,041 million and accounted for approximately 52% of the total current expenditures of the Province for the 1981-82 fiscal year. The percentage for the 1982-83 year was approximately 56%.

We performed various analyses and comparisons including trend and ratio analysis of the Estimates and other data for all departments, and a more indepth review of the three departments studied in detail.

We interviewed senior financial and budgeting staff at Management Board and Department head offices in Halifax. We also conducted interviews with 15 Budget Subject Managers outside the Halifax area.

Findings and Conclusions

Our overall conclusions regarding the Management Planning and Budgeting System are that it is generally meeting the objectives set, and in providing a good deal of useful information it is a significant improvement over the previous budgeting system. Notwithstanding these improvements, we have concerns with information feedback and the need to accelerate the introduction of performance indicators.

In the following sections, I report in more detail on the more significant observations relating to the budgeting system.

1981-82 Department of Health Estimate Inadequate to Cover Costs of Approved Hospital Budgets

The approved Estimates for 1981-82 for the Department of Health's payments to hospitals totalled \$319.9 million. A supplementary appropriation of \$51.9 million was approved in February 1982, to cover additional costs for the year.

These additional costs comprised two principal items — \$39.1 million for hospital and health centre operating costs, and \$12.8 million to cover additional salary costs to hospital staff negotiated in April 1981.

The approved Estimates for 1981-82 did not include any provision for new or expanded programs, yet original budget submissions by the Department included \$10 million provision for this. However, this amount was eliminated, along with reductions in current hospital operating costs. As a result, it was necessary to include these amounts in the additional appropriation of February, 1982.

The second principal item, the additional costs of the salary contract settlement could have been more accurately allowed for in the Estimates. The expected salary rate increases for the nursing profession given to the Department for budgetary purposes were significantly below the amounts settled on in the summer of 1981. Expectations of staff of the Department of Health and Management Board, regarding the amounts to be agreed upon were closer to the actuals. Staff input was apparently not acted upon in finalizing the amounts for inclusion in the Estimates.

Moreover, it is our understanding that budgets approved by the Department of Health and sent to the hospitals in August 1981 for the

1981-82 fiscal year exceeded the total approved in the Estimates for hospital costs by \$37 million.

The foregoing indicates to me that the Estimates presented to the House for Legislative approval, did not realistically reflect the anticipated costs and plans for hospital operations in the year.

No Provision made for Increased Sharing in the Costs of Education

At the time the 1981-82 Estimates were approved in the House, the Government of Nova Scotia's share in the cost of education was calculated in accordance with the rates established under the Foundation Program. Many of these rates had not been revised since the mid 1970's. The municipal units were concerned over the increasing amount of education costs classified by the Department of Education as "unshareable", or in excess of shared costs. These increasing costs for the most part had to be absorbed completely by the municipal units.

In recognition of this difficulty the Government established the Commission on Public Education Finance, (Walker Commission), in August 1980. During the fall of 1980, this Commission conducted hearings throughout the Province. Their efforts culminated in a report submitted to the Minister of Education, in March 1981. Most of the recommendations in the report, of a financial nature, were accepted with modifications. They were implemented within the 1981-82 fiscal year, thus changing the manner of determining the shared financing.

This resulted in a net increase in expenditures by the Government. As no provision for this had been contained in the Estimates, the authority for this additional spending was therefore included as part of an additional appropriation for \$53.7 million, approved in April 1982. The principal components of the \$53.7 million additional appropriation were an allowance for increases in teachers' salaries of \$7.9 million; additional funding, largely necessitated by the Walker Commission recommendations, of \$26.9 million; and the assumption of \$18.5 million of expenditures previously included in the Estimates of the Department of Municipal Affairs.

I believe that a substantial portion of the \$26.9 million should have been foreseen and provided for in the Estimates.

Accuracy of the Estimates

The following comparison shows the expenditures which were within a 5% range of the original vote, and those expenditures which either exceeded or were less than the original vote by more than 5%.

	Actual (\$ millions)	Original Vote (\$ millions)
a) amounts expended for 55 votes within 5% plus or minus of the original vote	\$ 886.1	\$ 886.5
b) amounts expended for 24 votes under the original vote by more than 5%	240.0	269.4
c) Amounts expended for 2 votes exceeding the original vote by more than 5%	758.8	658.1
d) Amounts expended for 29 others, exceeding the original vote by more than 5%	232.8	188.9
Total	<u>\$2,117.7</u>	<u>\$2,002.9</u>

This net excess of actual expenditures over approved Estimates, amounting to \$114.8 million, represents a 5.7% overrun. This percentage is the highest in recent years. Over the prior five years, the excess ranged from 1.5% to 4.7%, with a net under spending of .9% one year. The average was a 2.0% excess.

Item (c) includes two votes (in the Departments of Education and Health) which account for \$100.7 million of the total excess, and these have been previously commented upon.

I would like to elaborate on the composition and magnitude of the 29 votes in item (d) above. Of these votes, 13 are from 9 different departments and the remaining 16 are Public Service Estimates. These 29 votes together comprise a significant percentage (26%) of the 110 votes contained in the Estimates. Moreover, the extent of the excess of actual expenditures over the approved Estimates at \$43.9 million represents a percentage overrun of 23%.

Time Commitment Under New System is Greater at All Staff Levels

The new system for budget preparation increased the number of people directly involved in building up the budget documentation. The increased qualitative and explanatory documentation required, imposed additional time burdens which would not have been necessary under the previous method. Although additional time requirements should have been expected, the amount was greatly in excess of that anticipated by many of the individuals involved in the budgetary process.

In addition to training sessions, time was needed to become familiar with and adjust to the new system, particularly identifying and evaluating alternative ways of accomplishing set goals.

Thus, the goal of "increasing participative management", brought with it the necessity of a substantially greater time commitment at most staff levels.

Time Commitment is Decreasing

The total amount of time spent by individuals in preparing the 1982-83 Estimates was not as great as that spent for 1981-82 because of improvements to the system and more familiarity with it. Management Board staff and the consultants implemented required changes which came to light during the preparation and review of the 1981-82 Estimates. Redundant areas of the budget submission forms were eliminated. Shortened versions of the forms which were equally effective were used in the second year. Another time saving feature, with benefits to be spread over a number of years, was the consolidation of budget subjects which had previously been shown separately.

Behavioural Aspects Observed

During our interview process, and the review of feedback obtained on the new budgeting system, we gained some insight into the human side of the implementation of the new budgeting system. As could be expected, the reaction was mixed. There were people who voiced an outright dislike of the new system. In some cases, we were of the opinion that some of these individuals would have been reluctant to accept any new system, replacing the one that they had been familiar

with. We also received a strong endorsement of the new system from many.

There was mixed reaction from those who had not been previously involved in the budgeting process. Some not previously involved welcomed the opportunity to participate in conveying the monetary needs of their programs, and to provide input which might affect decisions concerning their budget subject. We also received reaction from people who initially were not fond of being involved in the budgetary process. As they became more acquainted with the budgetary process, we concluded that it gained greater acceptance.

Even though we received mixed reactions, on balance we concluded that staff are supportive of the new budgeting system.

Lack of Timely Feedback to Budget Subject Managers

There are two types of feedback necessary for an effective budget system:

- details on what amounts have been included in the approved departmental budgets; and
- regular ongoing information on commitments and expenditures which permits comparison to budget, and facilitates appropriate corrective action.

The training manuals stated that the budget subject managers should, on an ongoing basis, be made aware of how their recommendations were progressing through the system. They were to be informed of any changes in funding levels, if made.

Most budget subject managers made their initial budget submissions for 1981-82 the previous September or October. These submissions then progressed through the budget review and approval levels within each department, before the department's request was finalized and submitted to Management Board. The majority of the budget subject managers, however received no information on the status of their recommendations until after the Estimates had been presented in the Legislature the following April.

Although it is appropriate to have responsibility managers included in deliberations concerning their budget subjects as they progress

through to final approval, we appreciate the practical difficulties associated with this. A great deal of time would be spent in additional communication, up-dating each individual manager. Until final approval, any budget subject amount could undergo revisions. We found that most of the managers, unless told otherwise, continue to operate, anticipating approval at the levels approved for the previous year. No new programs or activities are undertaken until they receive formal approval. We believe that this practice is an acceptable one. For minor changes, we see few reasons to involve line managers in discussions which might occur over a four or five month period.

Once funding levels are approved, however, we believe it is imperative that the budget subject managers be advised of these amounts as soon as possible. Delays diminish the ability to implement whatever corrective measures may be necessary. The budget subject managers must be able to make decisions which they feel will ultimately save dollars, yet still allow them to accomplish the goals established for them. The earlier they can do this, the greater the possibility that they can be effective.

Budget subject managers must be able to intelligently monitor the actual expenditures. This is an essential part of any budgeting system. On an ongoing basis, budget subject managers must know how actual expenditures compare to budget. Without this information, they are not able to identify areas requiring corrective action.

A number of methods exist which allow certain budget subject managers to perform this monitoring. In 1981-82, no effort was made by the Department of Finance or Management Board to implement an overall monitoring system.

However, during the 1982-83 fiscal year, an attempt was made to provide both central authorities and individual budget subject managers with information that would be useful, timely, and accurate. This occurred in the form of the "Budgetary Control System" which has been approved but is not fully operational.

The attempt has met with only limited success because of the delays in reporting expenditure commitments as well as actual disbursements. This overstates the amount of money remaining to be spent. The onus, therefore, falls on the departments and the individual managers to be aware of all their commitments in addition to actual expenditures that have been made.

New System Does Provide More Useful Information to Decision Makers

The additional information provided under the Management Planning and Budgeting System can be of great use to decision makers. The depth of detail and format now in the Estimates is, in our opinion, a commendable improvement. Its preparation originates at the level of management to which front line responsibility has been delegated.

These individuals have a basic obligation to ensure that all funds necessary to meet the goals and carry out the objectives established for their programs, are included in their budgets. Their requests, however, are scrutinized by successive levels of management. At each higher level of review these goals are brought more closely into focus, so as to present to the final decision makers successively ranked priority listings of those items being recommended from within the department. Each item has been subjected to examination and critique by other staff members within the department, as well as having gone through an overall review by staff of Management Board. Costs and alternatives where appropriate have been documented and are available for final scrutiny. How and where the final resources of the government are to be utilized is, of course, a decision entrusted to the elected representatives of the taxpayers of Nova Scotia.

Efficiency and Effectiveness Indicators Warranted

One of the basic questions focused on in Zero Base Budgeting is: "Are the current activities efficient and effective?"

To obtain data to be used in addressing this topic, performance or operational indicators are being introduced by Management Board but are still in the preliminary stages. These indicators will provide a base to allow management to measure the efficiency and the effectiveness of the level and quality of output and services being provided. They are intended to function as warning devices which will call attention to abnormal results so that management may improve the means of producing and delivering services. Our review was not intended to include performance indicators, as they are not yet fully implemented in all departments.

We fully endorse the introduction of performance indicators as we feel their use will make a significant contribution in controlling government expenditures. Further intensive efforts to develop and utilize performance indicators are warranted and indeed, in today's economy, necessary.

MPBS Objectives Not Fully Accomplished

During the course of our assignment, we obtained feed-back both directly and indirectly on how budget subject managers felt the stated objectives for the Management Planning and Budgeting System (MPBS) were being met. Although the reaction does vary to some extent among and within departments, it is our opinion that one of the two main reasons for implementing this system, namely "*to facilitate the decision process for allocating resources*" has been met. Within the guidelines provided, staff have been able to convey to decision makers, the necessary information to determine funding levels required.

The second main objective, "*to improve the ability to monitor and control revenues and expenditures on a timely and regular basis*", requires improvement on a government wide basis. Cooperative efforts are necessary to provide accurate and timely output which may then be consolidated and returned to the levels within the departments for interpretation and remedial action. This objective is presently being addressed.

In order to permit the objectives of MPBS to be met on a continuing basis, the following comments are made based on our observations.

1. There must be on-going attempts within the Departments and at the budget subject manager level to identify and evaluate alternative methods of providing services. This will subsequently lead to ways in which costs may be reduced or at least maintained at a level closer to that of the previous year.
2. To ensure the integrity of the budgeting process, and to maintain staff morale, every effort must be made during the planning stages to provide accurate initial information to departments and budget subject managers. Realistic guidelines, which properly reflect expected spending and inflationary patterns, will better enable budget managers to more precisely develop their packages. This in turn will build confidence in the system.

Preparation of Estimates A Sincere Effort By Staff

We believe the efforts made by staff, in preparing the Estimates, were generally sincere and conscientious. The end results achieved, although partially controllable by managers, were also effected by factors outside of their control.

A lot of uncertainties were faced as the 1981-82 fiscal year began. As pointed out earlier, contract negotiations were under way with two significant professional units within the Province, namely teachers and nurses. These were subsequently finalized during the year. Other uncertainties existed due to the pending implementation of the Hay System of remuneration for public service employees, and a number of departmental studies and reorganizations which were underway.

A Word of Caution

The Management Planning and Budgeting System, originally decided upon as an appropriate vehicle for financial planning and control for the Province of Nova Scotia, is now in its fourth year of operation. The system as previously described in this article is based upon some fundamental premises and standards, such as levels of funding or decision packages; an extensive degree of data build up in relation to existing programs and services; and an intensive evaluation and decision process related to needs and priorities.

The introduction and implementation of the system has involved a substantial investment of time and effort by staff in both Management Board and the Departments. As well there have been organizational shifts in responsibilities, to facilitate the role of the budget subject manager.

It is acknowledged that the development of this system is both an evolving process, and one that cannot be expected at all times to accommodate demands of the various environments within which government operates. Accordingly, there will be times when it may be necessary to modify certain of the underlying programs or decisions previously made and funded.

The current period of extreme economic difficulty is one in which Government, mainly because of unanticipated revenue shortfalls, is attempting to minimize current account deficits. Yet at the same time there are increasing demands for Government expenditure.

In addressing these financial pressures there is a tendency on occasion to make budget cuts of a fixed percentage — across the board type. Although this may be the quickest and easiest way of reducing planned expenditures, there are possible consequences that should be recognized.

Suggested budgetary cut-backs must be approached on a systematic and realistic basis that recognizes funding levels, service needs, and essential priorities. Otherwise there is a very real risk that application of arbitrary fixed percentage reductions will undermine the foundations of the Management Planning and Budgeting System that have involved a massive investment of time and a systematic approach in the development of analysis and data to support the budget.

Therefore, the word of caution I would offer, is to undertake expenditure reductions in a systematic manner that will not negate the significant progress made to date in the development and implementation of the sounder and more appropriate Management Planning and Budgeting System.

Computer Related Audits

Introduction

The increasing application of computerized equipment and systems in most agencies and departments, results in their use being the primary vehicle for processing of data and record keeping within Government. Accordingly to fulfill the mandate which I have under Section 7 of the Auditor General Act, *"to ascertain whether . . . essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property"* — it is necessary that my office conduct regular audits of the computerized accounting systems of the Province. Each year these types of audit reviews must be carried out, and it is reasonable to expect their frequency and intensity to increase in keeping with further growth in computerized applications.

This year's report contains a discussion of three audits relating to computerized systems, and a brief summary of each is presented in the following paragraphs.

- *Security Audit — System and Computer Services Division*

In my 1981 Annual Report, I dealt with an extensive examination of the security policies, practices and procedures of the Systems and Computer Services Division (SCSD), of the Department of Government Services.

This year we performed an update review, to determine the status of recommendations included in our audit report of December 1981.

Our review revealed significant progress being made in the correction of almost all of the security deficiencies upon which we had reported. However, we did note that Government has not as yet provided SCSD or other departments with a policy relating to the classification of data and information.

- *Department of Finance — computerized accounting systems*

A computer was installed by this Department in 1981, to maintain accounts payable and general ledger systems.

During the past year, my office performed an audit of this system to assess the adequacy of the environmental and processing controls.

This audit revealed several serious control weaknesses and these were reported to the Department in April 1982. In addition, we conducted a follow up review later in the year to determine the status of corrective action regarding these weaknesses. We found most had not been corrected.

- *Computer Resources Management*

Due to the considerable increase in the number of computerized systems within Government, and the fact that many of these are quite independent of one another, I was prompted to undertake a review of certain aspects of the overall management of these computer resources.

Accordingly, an audit review was conducted which concentrated upon the planning and decision process regarding the development of computer resources, and also reviewed duplication and compatibility considerations.

Our examination disclosed significant shortcomings, namely the lack of a long range policy or strategy for development of this resource, and the absence of an effective central control mechanism to monitor administration of the resources.

Security Audit — Systems and Computer Services Division (SCSD)

My 1981 annual report described an audit of the Systems and Computer Services Division of the Department of Government Services. This audit was the most extensive computer audit performed to date by my office, and encompassed a review of the security policies, practices and procedures of the Division.

Our audit report to SCSD in December 1981, covered 10 areas that we reviewed, and described 79 major and minor deficiencies, many of which were of a technical nature. My 1981 Annual Report outlined three areas of importance which were of significance not only to SCSD but also to other departments of Government. These areas were:

- the lack of a policy relating to the classification of government data and information;
- the lack of formal assignment of responsibility for all aspects of electronic data processing security; and
- an often encountered lack of awareness of basic security practices, and carelessness about the use of established security procedures.

There was general agreement by the Department with the overall conclusions and recommendations of our audit. In fact, action had been commenced on many of the items of concern before the audit was completed.

In September 1982, my office conducted a follow up review to determine the status of the various recommendations included in our report. I am pleased to state there has been a very positive reaction by the Department to those items over which it had jurisdiction. Corrective action has been initiated on all of the major recommendations with the exception of the implementation of a government wide policy for classification of data. In particular, the following significant measures have been taken:

- 1) the appointment of a facilities planner/security co-ordinator whose responsibilities include the planning and implementation of all projects involving the installation or removal of computer equipment and the security of the central site computer facilities;
- 2) the commencement of a review of all aspects of security to identify risks to the organization;
- 3) the hiring of additional security personnel, plus the installation of a new security system which is a significant improvement in the physical protection of the central facility;
- 4) the addition of new security systems dealing with access to data and/or application programs, to increase security over these critical areas; and
- 5) the development of a new inventory system to control information on all equipment, whether leased or owned, which will improve control over equipment and facilities.

Implementation of the above measures, as well as concerted action on many other security deficiencies, is indicative of a desire on the part of the Division to provide adequate security control over its operation.

However, there has been no response from Senior Government levels regarding the formulation of policy relating to the classification of data and information. I am concerned that an appreciation of the seriousness of this situation has not been recognized nor addressed. As a result, SCSD management does not have available to it guidelines outlining policy on the confidentiality of data and information.

This lack of policy makes it extremely difficult for SCSD, as well as users, to formulate operating procedures to deal effectively with such interrelated matters as personnel management, systems development practices, back-up and recovery procedures, and contingency planning.

Department of Finance

In 1981, the Department of Finance installed a computer to maintain accounts payable and general ledger systems, as well as improve control over expenditures by providing better information to the departments of government.

During the year, an audit of this computerized system was performed by my office with an emphasis on the adequacy and effectiveness of both the environmental and processing controls for the installation and its related systems.

Our audit review was concerned with controls in four areas: documentation, development and maintenance, organization, and operations and processing.

In overview, I report that there were significant weaknesses in the controls associated with these systems. An audit report, setting forth both our findings and recommendations, was issued to the Department in April 1982. A recent follow-up by my office revealed that although corrective steps have been taken in some areas, there remain serious shortcomings.

The following sections describe briefly the more important audit observations.

Audit Observations

- *There is only limited procedures documentation available for the users.*

User documentation, which outlines procedures to be followed for proper use of the system is very limited. This situation can result in confusion and procedural errors by system users, and also contribute to improper performance of control procedures.

- *There is a serious weakness in organization controls, flowing from an inadequate segregation of duties.*

A fundamental internal control in a data processing operation is the segregation of responsibility between programmers

(those who write programs), and operators (those who utilize the programs). This segregation is necessary to ensure that unauthorized access to systems and data which could result in extraction, alteration or other threats, is avoided.

The Department's Manager of Data Processing has full access to all systems, programs, job control procedures, and all data, as well as an active involvement in the systems development process.

- *The Department does not have adequate security procedures to properly safeguard its investment.*

An important control feature of a data processing installation is the restriction of access to facilities and information to authorized individuals. Unauthorized access can result in theft or destruction of equipment and/or information with the resultant disruption of service or disclosure of confidential information. The Department's security provisions must be reassessed to provide for limited access to equipment and information.

- *The Department does not have a back up facility to provide continuous processing, should the primary facility be rendered inoperable.*

The Department has provided for off-site storage of back-up copies of programs, data and operating systems. However no provision has been made for two important aspects of contingency planning — the provision for an alternate processing site, and the development of a security and control program to prevent or minimize losses due to natural or man-made hazards.

- *The Department should undertake a thorough analysis of potential risks or threats to the facility.*

This type of risk analysis is essential in order to determine the requirements for back-up facility, security and control programs, and contingency plans.

The Department of Finance presently does not have any contingency plans and in the case of an emergency, recovery procedures would have to be developed on an ad hoc basis.

- *There was evidence of laxity regarding several significant procedures.*

The introduction of computer systems to the operations at the Department of Finance has resulted in the need for changes in procedures for data entry, data control and data security. Several important control procedures have been neglected, and these are:

- Bank reconciliations are not being done on a timely basis. This procedure is essential to any payments operation to control the disbursement of funds.
- Physical controls over blank cheques are poor, which could result in fraudulent activity or loss of funds.
- Several of the computer reports produced by the systems are not being used, either because they are not necessary or because their use is not fully understood.

Conclusions

Although I will acknowledge that certain corrective steps have been taken in response to my audit report of April, 1982, the situation regarding control features for the Department of Finance computer installation still requires a good deal of attention.

In summary the major problems to be addressed are:

- the inadequacy of user documentation;
- a serious control weakness in the organization, concerning segregation of duties;
- the lack of adequate security procedures;
- the need for a back-up facility; and
- the desirability of a thorough risk analysis.

The Department is currently involved in new systems development and is planning a significant expansion to its present operation. I am

very concerned that the weaknesses in the present systems will effect development and operation of any new systems. Due to the many potential costly implications of trying to change systems after they are developed, it is essential that the Department attend to these security and control measures before any further development or expansion is attempted.

Computer Resources Audit

Background

The history of data processing in the Provincial Government dates back to 1958, when the Division of Administrative Services was formed. The first computer was acquired by the Province in 1966 and was followed in 1968 by the installation of direct access storage devices and the conversion to disc operating systems. In 1970 the division was renamed Management Consulting Services, and in 1976 was reorganized with an expanded mandate and became known as the Bureau of Management Consulting Computer/Communication Services (BMCS). Finally in 1980, BMCS became one of the five divisions of the Department of Government Services and was renamed the Systems and Computer Services Division (SCSD).

During this period of growth and expansion, the Province's data processing facilities and systems were continually modified to reflect changes in technology and to react to the expanding requirements of the users. Today the Data Centre is a sophisticated data processing facility using the latest technology and providing services to a large number of users.

For years, there was a tendency towards a strong central control over data processing and systems development. Most computerized systems were operated on the Data Centre equipment, and the users utilized services of the Systems and Computer Services Division for systems development, acquisition of equipment and programs, and advice as to the feasibility of converting to computer processing.

However, as technology has advanced, and both hardware and systems have become more economical to purchase and/or operate, there has been a move among departments and agencies to acquire their own facilities and operate independently of the Data Centre.

The concept of decentralization is widely recognized and used throughout government and industry and does offer many advantages to the user. These advantages include more direct control over the operations, more responsive systems, and more immediate interface between user and data. However, decentralization must be accompanied by careful planning to avoid the uncontrolled proliferation of machines, data and programs. There must exist a strong central control mechanism to provide leadership by means of policy statements and planning guidelines, and to monitor the acquisition and use of computer equipment and technology.

The Province of Nova Scotia has decentralized some of its operations and now has several installations which may be considered fairly sophisticated in their own right. Along with the central data centre, which houses a large main frame computer, there are now independent operations in the Departments of Finance, Social Services, and Transportation. In addition to these fairly sophisticated operations, there are mini and micro computers in almost all departments, being used for a variety of applications. Finally there are numerous word processing units throughout the Government which are used for text editing and word processing purposes, and in some data processing capacities.

Objectives of the Audit

Due to this considerable increase in computerized equipment and systems, I felt it appropriate to review the decision making process concerning their procurement and use.

Also in recognition of the large investment already made in data processing equipment, I assessed this investment from the point of view of duplication and/or incompatibility of machinery, systems and data within the Government.

This article deals with each of the above objectives, and presents my overall conclusions regarding the management of the Province's computer system resources.

The Decision Making Process

The key to effective acquisition and use of computer equipment and technology is long range strategic planning for automation, not only at the department level but also at the senior policy making levels of government.

In the shift from a single centrally controlled data processing environment to a proliferation of equipment and systems among the departments and agencies of government, it was my expectation to find this decentralization to have been implemented within the framework of a long range plan or strategy.

Accordingly we reviewed the decision making process for the acquisition, development and use of computer facilities and systems at the two levels — government wide and departmental.

We found a decision making process characterized by the following:

- There is no long range plan with objectives for information processing, and strategies for meeting these objectives.
- A properly functioning central control mechanism does not exist to assume the overall responsibility for administration and control of the acquisition and use of data processing equipment.
- Many departments are not utilizing a systematic approach to needs analysis to justify the feasibility of equipment and systems acquisitions.
- There is a conflicting assignment of responsibilities in the area of automated management systems, (as more fully described below).

There are three departments with varying degrees of responsibilities and input into the decision making process.

1. The Chairman of the Management Board has been assigned, by Order in Council number 79-1558, the responsibility for all affairs and matters related to the determination of policy and priorities respecting the development and implementation of automated management systems.
2. The Minister of Finance is required by Section 4 of the Provincial Finance Act to maintain an accounting system to show —the current state of the Consolidated Fund, the revenue and expenditures of each fiscal year, and information on commitments and fixed charges; and Section 12 of the Act states that

the Deputy Minister of Finance shall determine the method of keeping all accounts of the public service.

3. The 1982-83 Estimates of the Province of Nova Scotia state that the Systems and Computer Services Division of the Department of Government Services is responsible for — client liaison and education; design, development, installation and maintenance of approved systems applications; operation of shared-use information processing facilities, including micrographics; equipment procurement and computer technology planning.

These conditions have been identified on previous occasions. In November 1980, in a study commissioned by Government, a firm of management consultants developed "*An Information Systems Strategic Plan*". This plan proposed key objectives for long range information processing, and strategies for meeting them. As part of a proposed decentralization strategy and to provide user control over development projects, the study recommended an advisory group to provide coordination and control.

More recently, in 1981, the Department of Finance proposed the formation of a joint committee to be responsible for formulation of policy guidelines and review of proposals for new computer applications.

I can only reiterate the convictions of the above noted two groups that a central committee is needed to insure consistent and comprehensive management, particularly in the face of rapidly changing technology. This central committee must be given responsibility for at least the following:

- a) the formulation of policy guidelines and standards covering procurement and use of computer technology;
- b) the setting of long-range plans and objectives for the Government as a whole, after due consideration of departmental needs and objectives;
- c) the management of computer resources throughout the Government, through the review of proposals for new systems and/or facilities prior to the commitment of resources; and

- d) the monitoring of the growth of computer technology throughout the Government service to avoid such things as unnecessary duplication of systems, and the incompatibility of hardware, software and data.

Duplication and Compatibility Considerations

As described in the background section of this article, the Province, in addition to its central data centre, now has three large independent operations as well as several mini and micro computer installations. Any duplication of facilities has to be examined in the light of its purpose and need within the framework of any long range plan or strategy for development of the data processing resources of the Province.

It will be appreciated that, as previously stated, since there is not available an enunciated long range plan or strategy there are no criteria against which to measure the Province's extensive investment in equipment and applications software. The question must be posed therefore, were acquisition decisions made on a short term, ad-hoc basis that might not be in the long run best interests of orderly development?

There is an example of an installation, that may have been embarked upon principally in reaction to a short term capacity situation at the Data Centre. This was the new accounting system installed at the Department of Finance in 1981. This major expansion of the Province's data processing capability is described to point out that a course of action was decided upon at a time when there were no long run plans or policies in place. Nor were there available any criteria or guidelines against which to measure how well this proposed installation fitted into the Government's overall data processing environment.

A summary of the background to this decision, and certain results are as follows.

Computerized accounting systems for the Department of Finance were originally operated on the central Data Centre equipment. Due to several problems the most critical of which was a temporary shortage of disc space for data storage at the Data Centre, long since remedied, the Department of Finance was experiencing severe processing delays and scheduling problems. This prompted the Department to request approval to acquire their own equipment to process their data. The installation

was to cost approximately \$350,000 and would provide a central accounting function for the Province.

However, the installation has been enlarged from the original plan, and now equipment and systems costs have exceeded \$530,000. In addition, the Department plans a communications network to provide on-line inquiry facilities to many departments. The expansion will involve a significant enhancement of the existing facilities, that will require substantial additional expenditures for both hardware and software.

Three areas of consideration that were subject to review in our audit, are discussed in the following paragraphs.

(1) This system was to provide accounting services for virtually all Government departments. However, many departments have their own financial reporting systems which duplicate reports produced by the Department of Finance. In addition, certain of these departments are using their own data processing equipment to produce reports. While much of this departmental equipment may not have been purchased strictly for financial reporting systems, duplication does exist with regard to systems, data and personnel to operate these applications. These duplicate systems were introduced because the Department of Finance system was not producing timely or accurate figures, and data was not always in formats suitable to management's needs.

Moreover a primary purpose for acquisition of the unit at Finance was to generate reporting data on commitments, to facilitate control over expenditures. To date the software to accomplish this result has not been developed.

It must be understood that I am not making an unqualified statement that the Department of Finance installation should not have been proceeded with. What I am attempting to portray is that considerations relating to a decision of this magnitude must be evaluated in the light of soundly based criteria and guidelines, which flow from enunciated overall policies for computer development. Such evaluation might well have suggested a different course of action, or it might not have.

(2) A second consideration relating to computer equipment acquisition is its compatibility, (ability to readily interact with other equipment, by transferring data and/or programs). I must point out that it is not essential, (nor always desirable), that all equipment acquisitions be

fully compatible. All that is necessary is that any incompatibility features be recognized and taken into consideration in the decision process.

Until recently, the central data centre operated by the Department of Government Services provided computer services for most Government Departments. Unfortunately, equipment and systems acquired by government departments and agencies over the past two to four years, have not always been compatible with existing equipment, either at the central Data Center or within other departments.

Many of the independent financial systems in the departments do not readily communicate with the Department of Finance systems. This has resulted in tedious manual transcriptions of data from one system, to input to a second system. It has also meant that reconciliations between these systems and the Department of Finance information must be done manually. Therefore, while there may be advantages to automation within individual departments, overall incompatibility of systems and data is causing duplication of effort and inefficiencies in the use of resources.

Another aspect of incompatibility is the inability to transfer systems and programs between installations. If systems and hardware were more compatible, the Province could provide its own back-up facilities in the case of equipment malfunction. Considering the large dependence on computerized information, alternate processing sites should be a priority to ensure a minimum of interruption in processing ability.

Finally, problems could arise in future as systems become more complex and telecommunications play a greater role. Information will be transferred using sophisticated networks over greater distances. At the present time, not all of the equipment within the government service can utilize the existing network configuration. This incompatibility feature may require duplicate networks being created, or changes in equipment.

(3) A third consideration examined in our audit was the question of capacity monitoring. Capacity refers to the storage capability of a computer installation, and in some measure to its ability to process data. Efficient use of capacity can mean operational economies and effective use of equipment.

Monitoring the use of computer hardware and software is essential for two reasons. To ensure it is being used for the intended purpose and to call attention to areas of excess or unused capacity.

Unfortunately the departments and divisions, other than SCSD, are making little or no attempt to monitor capacity usage. Many of these systems are, admittedly, dedicated to one user. However, to the extent there is duplication of hardware, systems and data, we feel there may be a high degree of unused or misused capacity. But without usage being monitored, it is not possible to determine what percentage of time, processing ability or capacity is being used.

Conclusions

There is one overriding conclusion which emerges from our review of the computer resources of the Province. *An overall plan or strategy for the development of these resources has not been prepared.*

In addition, *an effective central committee is not in operation to develop policy and guidelines and monitor administration and development of the resources.* Instead there is a divided and contradictory assignment of responsibilities among three different departments of Government.

Accordingly, decisions regarding computer equipment and systems acquisition and use, tend to be made on an ad hoc, short-run needs basis.

As a result, we witness situations with respect to duplication, incompatibility, and capacity monitoring that are posing difficulties. These problems will likely become more pronounced as systems complexity and interdependence increase.

In view of the seriousness of these conclusions, I wish to offer the following recommendations:

1. There must be established a strong central control over the acquisition, development and use of computer facilities and technology. This control should be established at the policy making levels of government to ensure standardization of planning and uniformity in decision making. Policies must be formulated to ensure long range objectives will be met at both the departmental and overall government levels.

2. There must be formed a responsible senior level planning committee that will have the overall responsibility to ensure that policies and associated guidelines, and long run plans are being adequately maintained and followed. This committee must function on an ongoing basis, and be prepared where necessary to consider special situations regarding the Province's computer resources acquisition and allocation.
3. The long range strategy of the Government once formulated, must be controlled by an operations group which will be responsible for the execution of these plans.

This group must be given the authority to control computer acquisition and use, and to act in an advisory capacity to the planning committee. I suggest the proper group to enact the policies and plans of the central committee is the Systems and Computer Services Division of the Department of Government Services.

4. There must be a more concerted effort to educate the users (departments) so as to give them an appreciation of their role within the process. The departments and other users should be provided guidelines regarding their responsibilities for their own planning to assist them in fulfilling their role. These guidelines should include the long range objectives of Government, the role of the user and SCSD in planning and operations, plus any policies regarding standards, utilization, capacity planning or similar areas.

Until there is a commitment to and a proper understanding of the need for detailed long-range planning at all levels of Government, problems will continue to plague the development of computer technology resulting in dysfunctional decision making and ultimately in the misuse of resources.

Crown Agency Accountability

From time to time concerns are raised in various government jurisdictions about whether crown owned corporations and agencies are held as accountable as they ought to be. For example, in his 1982 annual report to Parliament, the Auditor General of Canada concluded that federally owned corporations require an improved framework for accountability to both Parliament and Government.

In spite of some shortcomings, chiefly in legislative requirements for financial accountability, the situation in Nova Scotia does not present the same problems as it does elsewhere. The smaller size and fewer number of crown corporations in our Province are factors contributing to the more favourable condition here.

The financial records of all Nova Scotia crown agencies, numbering about 45, are subjected to audit either by private auditing firms, or by my office. Financial statements for many of these crown agencies are reproduced in the Public Accounts of the Province. Furthermore, officers of certain agencies regularly appear for questioning before various Committees of the Legislature.

In 1978, I reported upon the results of a study conducted by my office of the various statutory requirements of crown agencies, regarding the preparation and tabling before the House of both their financial statements and their annual reports. Upon examining the legislation of 45 agencies, we found that in most cases there was no statutory provision requiring the preparation of financial statements, no requirement to table financial statements in the House, and no provision for the preparation of an annual report on operations. Despite the lack of statutory requirements, there was in actual practice response to these matters, particularly from the larger agencies.

The situation now is essentially the same as it was in 1978. In my judgement, crown agency legislation should make provision for:

- the maintaining of suitable financial records;
- the preparation of annual financial statements;
- an annual audit of the financial records and statements; and
- the tabling of an annual report, including financial statements, in the House of Assembly.

Illustrative of the type of situation that I feel should be corrected is the following example. During the first session of the 53rd General Assembly in the spring of 1982, an act to incorporate Camp Hill Medical Centre was passed. When the Act was still in bill form, I observed that no provision had been made for the items referred to above. I wrote the Minister of Health, recommending there be requirements for financial

reporting included. However, the Act was passed without these modifications being made. While I acknowledge the Camp Hill complex has been placed in abeyance, yet another act regarding a crown agency for which there is no legislated provision for financial accountability has been included in the statutes of the Province.

With a few minor exceptions crown agencies in Nova Scotia prepare annual financial statements, and some are tabled in the House, despite the absence of statutory provision to do so. Nevertheless, it would seem appropriate to have these matters prescribed as statutory requirements. Otherwise, the possibility exists for an omission regarding financial accountability.

I strongly urge that steps be taken by Government to ensure that appropriate statutory provision be made to require all crown agencies, commissions and corporations to prepare and table before the House a set of financial statements and an annual report.

Provincial Loan Funds

Allowance for Doubtful Accounts

I am the appointed auditor of three funds from which loans are made to companies and individuals engaged in fisheries, tourism and industrial activities in the Province. These funds are the Fisheries Development Fund, the Industrial Expansion Fund and the Industrial Loan Fund. The Public Accounts include the financial statements of these funds, which comprise a balance sheet and a statement of continuity of the fund for the year.

In order to form an opinion on the balance sheets of these funds, it is necessary to assess the collectibility of the outstanding loans receivable. This was a particularly difficult task this year, especially in the Industrial Expansion Fund and the Fisheries Development Fund for loans made to those engaged in the fishing industry.

Significant increases totalling \$17.6 million were reflected in the allowances made for uncollectible accounts as scheduled below.

Allowance for Doubtful Accounts

	March 31, 1982 (\$ millions)	March 31, 1981 (\$ millions)
Fisheries Development Fund	\$ 8.2	\$ 4.2
Industrial Expansion Fund	22.9	11.4
Industrial Loan Fund	3.0	.9
	<u>\$34.1</u>	<u>\$16.5</u>

In spite of the large increase in the allowances, the uncertainty of obtaining full recovery on all the outstanding loans required a note to both the financial statements of the Industrial Expansion Fund and the Fishermen's Loan Fund that read as follows:

"... in view of the uncertain state of the economy at March 31, 1982, in certain industries to which loans have been made, there exists the possibility that the allowance may not be adequate to provide fully for all losses that may be sustained".

Conclusion

Notwithstanding the difficulties faced by Government in the administration of loan programs in a period of severe economic downturn, it is nevertheless essential to ensure maximum protection of taxpayers dollars, by providing that:

- every precaution be taken when assessing applications and setting conditions of loans;
- insistence on full compliance with loan conditions;
- monitoring of borrower financial condition; and
- collection activities be sustained at the highest level possible.

Provincial Retirement Plans

Introduction

It is my responsibility to perform an audit each year of both the Public Service Superannuation Fund and the Teachers' Pension Fund.

My audit is confined to essentially three areas, namely: the contributions received, the investments of the fund, and the pensions paid. The audit does not involve any requirement to assess the fund's position in relation to future pension commitments. This assessment is performed by a qualified actuary. It has been the practice of the Province to have these actuarial reviews every five years.

The actuary produces a report in which is calculated any unfunded liability. The actuarial valuation of a fund is a complicated process. It involves mathematically forecasting future experience of the plan, taking into consideration factors such as anticipated salary progression, inflation estimates, rate of return on funds invested, and probable rates of employee retirement, death, and disability. The valuation determines a difference between the total projected cost of pension benefits to be paid, and the projected future premiums and growth of the fund. Where there is a deficiency, it represents an unfunded liability. This means there are costs which have not been provided for, that will have to be met in the future to discharge the obligations of the plan.

An actuarial valuation of the Public Service Superannuation Fund was completed in December 1981, as of June 30, 1981. The previous valuation was as at June 30, 1976.

The most recent actuarial valuation of the Teachers' Pension Fund as at July 31, 1979, was completed in May, 1981. Prior to that, an evaluation at July 31, 1974 had been performed.

Owing to the implications of large unfunded liabilities, I have followed the practice of commenting upon the results of these actuarial valuations. My 1977 report contained an extensive coverage of the July 31, 1974 and June 30, 1976 valuation reports, both of which we received in the 1977 calendar year. In last year's report, I repeated certain of the concerns I had raised in 1977, and included updated comments on the Teachers' Pension Fund, based upon the May 1981 report of the actuary.

This year I would like to highlight the principal conclusions and recommendations from the December 1981 report on the Public Service Superannuation Fund, as well as refer once again to significant matters relating to the Teachers' Pension Fund.

It is my understanding that the Department of Finance is considering scheduling three year actuarial valuations of the pension funds, rather than at five year intervals. This would appear to be a desirable course of action.

Public Service Superannuation Fund

The actuarial report on the Public Service Superannuation Fund as at June 30, 1981 contains the following principal conclusions and recommendations:

- the unfunded liability is substantial at \$165.2 million, an increase from \$158.9 million at June 30, 1976;
- the Fund is better funded than many similar senior government plans, and is one of the best in Canada;
- the relatively slight increase of the unfunded liability over the past five years was due primarily to the favourable effect of high interest rates, and is not a reasonable continuing future expectation;
- the present level of both employee and Government contributions is adequate to finance the level of current benefits being earned, but makes no provision for interest on the unfunded liability;
- accordingly, the unfunded liability can be expected to increase annually by an amount equal to the income that should be earned on the present \$165.2 million balance; and
- therefore, consideration should be given to freezing the unfunded liability by paying interest each year of approximately \$16.5 million on the outstanding balance.

Teachers' Pension Fund

I consider it appropriate to repeat the significant conclusions and recommendations from the Teachers' Pension Fund valuation at July 31, 1979. These were:

- the unfunded liability amounts to \$457.9 million at July 31, 1979, an increase of \$274 million since 1974;
- current contributions from teachers and Government are insufficient by 10% to meet the cost of the current benefits being earned; and
- a cash flow study should be undertaken to project cash needs over the next decade or more.

The condition of the Teachers' Pension Fund relative to the Public Service Superannuation Fund is considerably more serious, largely because of two factors, namely:

- there have been significant improvements in pension benefits over the years, without an equivalent increase in contributions to finance these improvements; and
- the Teachers' Pension Fund is charged with the full cost of the 6% indexation of pensions, whereas the Public Service Superannuation Fund bears the cost of 4% only, with the remaining 2% being charged to the Consolidated Fund.

An actuarial cash flow study has been approved for this fund, and the report is expected in early 1983.

Conclusions

Since the results of the most recent actuarial valuations continue to show an overall increase in the unfunded liabilities, I consider it appropriate to restate observations I have made in the past.

1. Current contribution levels should be sufficient to meet the costs of benefits being earned. There is a significant deficiency in this regard with respect to teachers' pension contributions. All increases in benefits should be paid for as earned, and not deferred to future periods.

2. Consideration should be given to freezing the unfunded liabilities of the pension funds by providing for interest earnings on them.

I recognize that under present economic conditions there may be practical limitations to fully provide for a freezing of the unfunded liabilities — a step that would require over \$60 million annually, assuming interest at 10%.

I do, however, submit that unfunded liabilities cannot be allowed to experience uncontrolled growth with no effort being made to provide for at least partial freezing. It has to be recognized that ultimately something must be done, and therefore, a policy regarding their control should be developed now and appropriate action commenced.

Failure to act has the effect of arbitrarily deferring to future periods present day costs that should be recognized today.

Sydney Steel Corporation (SYSCO)

Plagued by a heavy debt load, a largely outdated plant and soft markets, Sydney Steel Corporation continues to sustain substantial operating losses. For the fiscal year ended March 31, 1982, before grants from the Province are taken into account, the loss was \$76.6 million. For the seven months to October 30, 1982, the loss was \$46.3 million. At this point, the Corporation shows little prospect of becoming profitable in the foreseeable future, and has continued operations only because of direct and indirect financial assistance from the Province, and to a somewhat lesser extent by the Federal Government.

To March 31, 1982, the total financial involvement by the Province since taking over the plant is \$492 million, comprising \$277 million in direct grants, and \$215 million in guarantees.

The March 31, 1982, Annual Report of the Auditor General of Canada comments on the risk of a major loss to the Federal Government on a \$57 million loan guarantee, and possible lack of value for money in assistance payments.

Despite the problems, efforts continue to effect some improvements in SYSCO operations. A "Business Plan" involving expenditures

on plant facilities of about \$96 million was announced in 1981. It was based upon a cost sharing agreement between the Federal Government and the Government of Nova Scotia. Some delays have been experienced in proceeding with the plan, but recent indications are that it is to be implemented.

Debt Takeover

To alleviate somewhat the heavy debt load being borne by the Corporation, the Province has embarked upon a program to reduce SYSCO's debt and to provide grants to assist in servicing the remaining debt.

During the 1981-82 fiscal year, the Province converted its advances to SYSCO of \$52.3 million to an equity investment. Also the Province made grants to the Corporation of \$47.4 million to cover debt servicing costs. A further \$11.6 million in operating assistance was provided SYSCO in the year.

In addition, the Estimates of the Province for the 1982-83 fiscal year includes two amounts — a capital grant for debt retirement of \$7 million and a grant for operating assistance of \$10 million, including debt servicing costs.

Accounting for Grants and Debt Assistance

Upon examining the financial statements of SYSCO, I am satisfied that the debt assistance of \$99.7 million, referred to above, has been properly reflected on the records of the Corporation.

Furthermore, I concur with the manner in which the conversion of the \$52.3 million advance to SYSCO was treated on the books of the Province, the net effect of which was to write this amount off — this was accomplished by a charge to Surplus Account. (For a discussion on the use of Surplus Account, see article page 74).

However, in the case of the \$47.4 million additional debt assistance, I find that this has been charged to Accumulated Capital Expenditures. I question this accounting treatment for the following reasons:

- Accumulated Capital Expenditures is, according to my understanding, an account to which are charged expenditures for

assets having long term use and value, such as highways, buildings and the like.

- The \$47.4 million expenditure is not for an asset of future value but rather a payment for a previously incurred debt, and therefore should be charged to current expenditures.
- There is no appreciable difference in intent or effect of the two components of debt assistance rendered to SYSCO during the year. Yet there is a distinct inconsistency in the accounting treatment — one being charged to Surplus and the other to Accumulated Capital Expenditures.

The Accumulated Capital Expenditure account should not be charged with costs that are likely to be of little continuing value. Such charges should be made to current operations. The effect of this entry is to significantly understate the year's Net Revenue Deficit as shown on Statement 3 of the Public Accounts. It does not effect the calculation of Net Direct Debt as reported on Statements 1 and 4 of the Public Accounts.

Conclusion

Had the \$47.4 million been charged to current expenditures, instead of to the Accumulated Capital Expenditure Account, the Net Revenue Deficit of the Province for the year would have been greater by that amount. Similarly, the Surplus Account would have been less than that shown by an equivalent amount.

Department of Tourism

No Value Received for Money Spent

During the audit of the Department's payroll records, we found that a member of the staff had been absent without official leave for the period March 22, 1981 to February 25, 1982. The Department continued to pay this employee for that entire period — a total of 50 weeks. According to Departmental records, approximately \$19,000 was paid to this employee during that time.

It is alleged that the employee was sent home by his immediate supervisor because of dissatisfaction with his performance. Officials of the Department felt that the employee needed some sick leave which together with accumulated vacation entitlements would, in their estimation, account for approximately eight weeks of leave. During the remaining 42 weeks, the Department claims to have sought alternate employment for this employee while continuing to pay his salary. On February 26, 1982 alternate employment was found and the employee continues to be on the payroll of the Department.

Accepting as valid, the explanation given to me regarding the eight weeks of sick leave and vacation leave, there remains a period of 42 weeks in which salary was paid but no value received for funds spent by the Department.

FINANCIAL

Accounting for Capital Expenditures and Surplus

It has been said that the financial statements of the Province of Nova Scotia are perhaps the most difficult to understand of all the Provinces of Canada. This is largely because certain accounting practices continue to be followed in Nova Scotia which are no longer used in the other jurisdictions. As a result the annual financial statements are not readily comparable to those of the other Provinces, nor more importantly, as comprehensible for many readers.

Two fundamental differences which distinguish the accounting and disclosure practices of the Province of Nova Scotia, are:

- the method used to account for capital expenditures; and
- the use of surplus and reserve accounts.

The different accounting practices used by Nova Scotia do not result in misrepresentation of the Province's financial position or the results of its operation for a year. Rather it can be said that the unique accounting and disclosure practices for both capital expenditures and surplus, may result in an erroneous impression of what the published financial information is intended to convey.

Illustrative of this is the fact that, discussions regarding the Surplus Account, in the House of Assembly, at Legislative Committee meetings, as well as media coverage on the subject, indicate a good deal of misconception as to its precise nature and purpose. Furthermore, some may have the impression that the Surplus Account is, in fact, backed up by an equivalent amount of cash and/or securities. However, this is not the case. It is simply created as a result of certain accounting entries, and there are no funds earmarked specifically to support it.

Following is a more detailed explanation of the accounting and disclosure policies being used, recognizing that certain aspects of this discussion will be dealing with technical accounting matters.

Accounting for Capital Expenditures

On the Statement of Assets and Liabilities of the Province is an item captioned, "*Accumulated Capital Expenditures*", which at March 31, 1982 amounted to \$1.4 billion. It is an accumulation of amounts that have been spent over the years:

- on the acquisition of capital assets, many of which are no longer in use or have been disposed of; and
- on various other items that could easily be classified as current operating expenditures.

By comparison, all other Provinces in Canada, except one, write off to current operations all of their so called capital expenditures each year. As a result they do not show, except possibly at a nominal valuation of \$1, any amount for capital assets on their annual Statement of Assets and Liabilities. The one exception to this practice follows a method of depreciating its capital assets, largely comparable to that followed by commercial and industrial concerns.

The financial statement presentation of Nova Scotia for capital expenditures has therefore two distinctly different features:

- first, there is included an amount in the annual Statement of Assets and Liabilities, that other Provinces see fit to charge off to the current year's operations; and
- second, this amount includes many expenditures for assets and other items long since disposed of, or now of a value significantly below the original outlay for them.

Accordingly, one has to question the relevance or purpose in reporting the item, *Accumulated Capital Expenditures*, on the annual Statement of Assets and Liabilities.

Surplus and Reserve Accounts

In Nova Scotia use is made not only of a Surplus Account, but various reserve accounts as well. Because of the similarity between Surplus and the Reserve Accounts, the following discussion treats them as one.

The most common understanding of what would comprise the balance in a Surplus Account, is that of accumulated operating surpluses, that is excess of operating revenues over operating expenditures. In the commercial or industrial scene, an equivalent account is termed Retained Earnings, and is simply the accumulation of annual operating profits, less dividends to shareholders.

Three Provinces are in the fortunate position of having total assets that are greater than their total liabilities. These Provinces report this residual excess as net assets, net equity or total equity — but in no case show a surplus account balance. The remaining six Provinces all have more liabilities than assets. Accordingly, they report the residual as either Net Debt or Excess of Liabilities over Assets. One of these six, is the only Province to also report a surplus account on its Statement of Assets and Liabilities.

The principal measure of financial position for the other Provinces is net debt, or for the more prosperous one it is net assets or equity. The net debt topic is dealt with more fully in the next section of this article.

The Surplus Account in Nova Scotia arises chiefly because capital assets are not written off. Accounting wise, the actual entries which create the balance in the Surplus Account, are those which are made to provide for the retirement of long-term debt.

Historically, long-term debt has been incurred to finance the acquisition of capital assets such as roads and buildings; to finance long-term lending programs where repayable loans are made to industry, and institutions; and from time to time to finance operating deficits.

The true nature of the Surplus Account is clouded by the accounting methods used, and the manner of presentation on the Statement of Assets and Liabilities. Surplus is not being shown as related to debt retirement, which it in fact is.

The following schedule summarizes the transactions that have flowed through the Surplus Account over the past ten years. It will be observed that the credits arising from debt retirement, totalling \$395 million instead of being used to write off capital assets, have been applied to the absorption of Net Revenue Deficits, Sydney Steel Corporation losses, various expenditures, and the write off of bad debts.

**A Condensed Consolidated Schedule of
Surplus and Reserve Accounts for the Ten Years
March 31, 1972 to March 31, 1982**
(\$ million)

Balance, March 31, 1972		\$ 269
Add: Provision for debt retirement —		
Sinking fund and serial bond requirements	\$ 318	
Interest earned on sinking funds applied to debt retirement	77	395
		<u>664</u>
Deduct: Expenditures charged directly to		
Surplus and Reserve Accounts	\$ 103	
Bad debt write-offs	100	
Sydney Steel Corporation losses	140	
	<u>343</u>	
Net Revenue Deficit for the period.	238	<u>581</u>
Balance, March 31, 1982		<u>\$ 83</u>

On the Statement of Assets and Liabilities in the Public Accounts, the Surplus Account is shown as a deduction from the "*Accumulated Capital Expenditures*" figure, thus implying to some degree that the two accounts are related. Since the Surplus Account is created by making provision to retire long-term debt, which debt has been to a large extent, incurred to acquire capital assets, it would seem appropriate to apply the surplus so created to writing off the assets on some suitable basis. However, as previously stated, in actual practice it has never been applied to the write off of capital assets.

It was because of the utilization of Surplus and Reserve Accounts to absorb charges that should be classified as operating expenditures, that I included in both my 1980 and 1981 Annual Reports a Condensed Reconstructed Statement of Revenue and Expenditure. These statements showed the impact upon the net revenue deficit for the two years, had these expenditures been included as a charge against revenue, rather than being charged to the Surplus and Reserve Accounts.

A significant measure of fiscal performance over the period of a year is the net excess or deficiency of revenues to expenditures. To maintain the integrity of this measure, it is necessary that all expenditures of a current nature be reflected in the annual Statement of Current Revenue and Expenditures, and not charged to surplus or reserve accounts.

In summary, the Surplus Account is not truly a surplus in the sense that most understand it. Its creation is due to the methods utilized to account for capital expenditures and debt retirement. The Surplus Account should be used to write off capital expenditures, but instead has been employed to absorb a variety of other charges.

Net Debt

The net debt amount — and its relative change each year, is in my view the basic measure of fiscal performance. They should be the subject of careful scrutiny by those interested in an analysis of financial position and performance.

It must be emphasized, however, that despite the accounting abnormalities referred to in this article, regarding capital expenditures and the use of Surplus and Reserve Accounts, their unique treatment in Nova Scotia does not impact upon the calculation of net debt.

If the Province of Nova Scotia followed an accounting practice relating to capital assets, similar to that of other Provinces, there would be no Surplus Account. Instead the Statement of Assets and Liabilities would show only;

- current and realizable assets;
- current and long-term debt; and
- a resultant excess of liabilities over assets, (referred to as net debt).

The Statement of Assets and Liabilities of the Province does convey clearly and accurately the Net Debt position. In this respect the financial statements of Nova Scotia are fully comparable to those of the other Provinces of Canada. The point of departure is that Nova Scotia's Statement of Assets and Liabilities includes details on capital expenditures, and Surplus and Reserve Accounts that are not portrayed by

other Provinces, and in my opinion are unnecessary and could be misleading.

It is regrettable that an excessive amount of attention has been directed to the Surplus Account, which in my opinion, is an irrelevant account that should be eliminated.

Actually, there cannot be a Surplus Account when a situation exists where there is an excess of liabilities over assets.

Concluding Remarks

I encourage those who manage public resources to provide an accounting of their stewardship in the most forthright and comprehensible manner possible, so that, particularly in these times of restraint and deficit financing, an appropriate degree of understanding can be achieved. I acknowledge that it is not easy to present the complex financial position and results of a government entity in simplified format. Moreover, I recognize that it will be necessary to amend the Provincial Finance Act to accommodate certain of the changes discussed in this article, but this should not pose too great a problem.

In summary, there are several key issues underlying the accounting and disclosure practices for the Province's financial statements where we depart from the other Provinces. I believe the others have achieved a financial statement presentation that is less complex and more understandable.

Accordingly, I would strongly recommend that a concerted effort be made to set revised accounting policies relating to:

- the accounting for capital expenditures —
to provide for their write off;
- the use of Surplus and Reserve accounts —
to provide a more appropriate accounting for debt retirement transactions; and
- the form and content of the Statement of Assets and Liabilities —
to eliminate unnecessary information that tends to make it more difficult for many to clearly understand the financial position of the Province.

Additional Appropriations

For these past several years, my Annual Reports have contained a section entitled "Additional Appropriations", in which I have listed all of those approved after the March 31 fiscal year end, and also commented on the fact that a substantial number of commitments are made and expenditures processed before the requisite approval is obtained. Again, I repeat that the ability to either commit or spend amounts without the approval of the proper authority, is a serious contravention of the legislative process.

Additional appropriations for the past fiscal year, approved both before and after March 31, 1982, totalled \$191 million, the highest level ever, and almost double the previous high of \$103.7 million in 1980-81. A substantial portion of this 1981-82 total relates to the supplementary requirements of the Departments of Education and Health, which amounted to \$105 million, (see article page 31). However, the distinct trend towards an ever increasing level of government expenditures being approved by the additional appropriation route has to be of concern. The following table shows the additional appropriations for the past five years.

Additional Appropriations (\$ million)

Year	Current	Capital	Total
1981-82	\$166.2	\$24.8	\$191.0
1980-81	72.5	31.2	103.7
1979-80	53.8	6.8	60.6
1978-79	86.1	10.2	96.3
1977-78	31.4	3.0	34.4

A further point worth noting regarding the approval of these supplementary expenditures is the lateness with which statutory approval is received. In the 1981-82 year for 18 votes, additional appropriations were authorized more than six months after the fiscal year end, 17 in October and one in November.

The following schedule lists the additional appropriations approved by Order in Council after March 31, 1982.

Additional Appropriation

Department/Vote	Approval Date	Amount
Attorney General		
Public Offices	May 25, 1982	\$ 20,000
Registry of Joint Stock Companies	October 12, 1982	32,506
Education		
Senior Management Program	April 20, 1982	85,700
Finance and Budgeting Program	April 20, 1982	53,276,400
Regional Vocational Education Program	April 20, 1982	328,200
Education Resource Service Program	April 20, 1982	33,400
Finance		
Government Contributions to Benefit Plans	October 12, 1982	466,971
Labour and Manpower		
General Administration	August 3, 1982	115,940
Safety Services	August 3, 1982	30,746
Labour Relations and Standards	August 3, 1982	55,309
Labour Relations and Standards	October 12, 1982	2,486
Manpower Services	October 12, 1982	127
Public Service		
Nova Scotia Housing Commission — Subsidies	April 27, 1982	1,379,000
Nova Scotia Housing Commission — Subsidies	October 12, 1982	948,607
Protocol Office	April 27, 1982	55,000
Gasoline and Fuel Oil Licensing Act — Administration	May 25, 1982	5,000
Motor Carrier Act — Administration	May 25, 1982	41,000
Office of the Speaker	May 25, 1982	15,000

Office of the Speaker	October 12, 1982	40,759
Election Expenses	August 3, 1982	120,000
Election Expenses	October 12, 1982	361
Tidal Power Corporation	August 3, 1982	24,084
Nova Scotia Housing Commission		
— Administration	October 12, 1982	176,662
Human Rights Commission	October 12, 1982	45,205
Legislative Counsel	October 12, 1982	17,058
Legislative Expenses	October 12, 1982	249,097
Ministers' Salaries and Expenses	October 12, 1982	74,616
Office of the Premier	October 12, 1982	3,600
Provincial Boundaries Commission	October 12, 1982	440
Workers' Compensation Board	November 30, 1982	153,438
Social Services		
Administration	October 12, 1982	226,211
Family and Children's Services	October 12, 1982	557,705
Tourism		
Hotel Operations	October 12, 1982	142,443
Transportation		
Maintenance and Improvement of Highways	August 3, 1982	1,151,155
		<u>\$59,874,226</u>

I am required under Section 8 (1) (f) of the Auditor General Act to call attention in my Annual Report to every case in which: "a special warrant, made pursuant to the provisions of the Provincial Finance Act, authorized a payment of money."

On February 16, 1982, a special warrant for \$12,800,000 was authorized for expenditures on the Halifax Panamax Dry Dock, (80% of which is recoverable from the Federal Government).

APPENDIX

The Auditor General Act

Section 7. The Auditor General shall examine in such manner and to the extent he considers necessary such of the accounts of public money received or expended by or on behalf of the Province, and such of the accounts of money received or expended by the Province in trust for or on account of any government or person or for any special purposes or otherwise, including, unless the Governor in Council otherwise directs, any accounts of public or other money received or expended by any agency of government appointed to manage any department, service, property or business of the Province, and shall ascertain whether in his opinion

- (a) accounts have been faithfully and properly kept;
- (b) all public money has been fully accounted for, and the rules and procedures applied are sufficient to secure an effective check on the assessment, collection, and proper allocation of the capital and revenue receipts;
- (c) money has been expended for the purposes for which it was appropriated by the Legislature, and the expenditures have been made as authorized; and
- (d) essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property.

Section 8. (1) The Auditor General shall report annually to the House of Assembly the results of his examination and call attention to every case in which he has observed that

- (a) any officer or employee has wilfully or negligently omitted to collect or receive any public money belonging to the Province; or
- (b) any public money was not duly accounted for and paid into the Consolidated Fund; or
- (c) any appropriation was exceeded or was applied to a purpose or in a manner not authorized by the Legislature; or
- (d) an expenditure was not authorized or was not properly vouched, or certified; or

- (e) there has been a deficiency or loss through fraud, default or mistake of any person; or
- (f) a special warrant, made pursuant to the provisions of the Provincial Finance Act, authorized the payment of money;

and to any other case that the Auditor General considers should be brought to the notice of the House of Assembly.

- (2) The report of the Auditor General shall be laid before the House of Assembly on a day following the day upon which the Public Accounts have been laid before the House of Assembly.
- (3) Whenever a case of the type described in clause (a), (b) or (e) of subsection (1) comes to the attention of the Auditor General, he shall forthwith report the circumstances of the case to the Minister.

Section 16 (1). Where the Governor in Council pursuant to this Act or any other Act has directed that the accounts of public money received or expended by any agency of government shall be examined by a chartered accountant or accountants other than the Auditor General, the chartered accountant or accountants shall

- (a) supply to the Auditor General annually a copy of all financial statements and reports prepared by them relating to the agency of government; and
 - (b) make available to the Auditor General, upon request, and upon reasonable notice, all working papers, schedules and other documentation relating to the audit or audits of the agency accounts.
- (2) Notwithstanding that a chartered accountant or accountants other than the Auditor General have been directed to examine the accounts of an agency of government, the Auditor General may conduct such additional examination and investigation of the records and operations of the agency of government as he deems necessary.